

# Montana

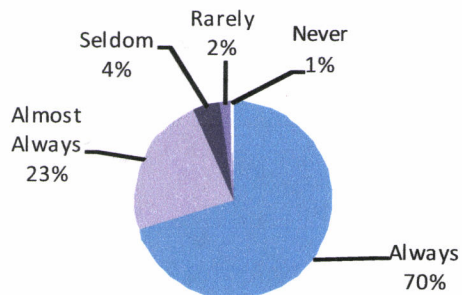
## Seat Belt Survey Results

### 2012

**In February 2012, the Montana Seat Belt Workgroup conducted a survey of Montanans aged 15 years and older. The goal of the survey was to learn more about attitudes towards seat belt use. A total of 1,832 individuals responded to the survey. These data summarize the survey findings.**

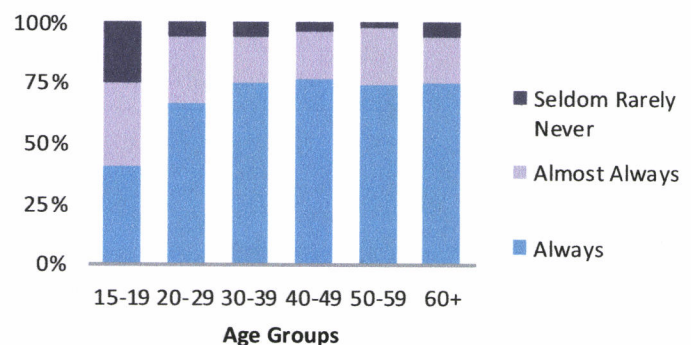
The majority of respondents (93%) reported *always* or *almost always* wear a seat belt when riding or driving a vehicle. Of the 7% who indicated they *seldom*, *rarely* or *never* wear a seat belt, their primary reasons were *lack of habit* and *driving in town*.

#### How often would you say you wear a seat belt when riding or driving a vehicle?



Younger individuals reported *always* wearing a seat belt less frequently than individuals aged 20 years and older. **Consider this: Young drivers have less driving experience and are more likely to be involved in a crash than more experienced drivers. Seat belt use is an effective way to ensure our young drivers live to become experienced drivers.**

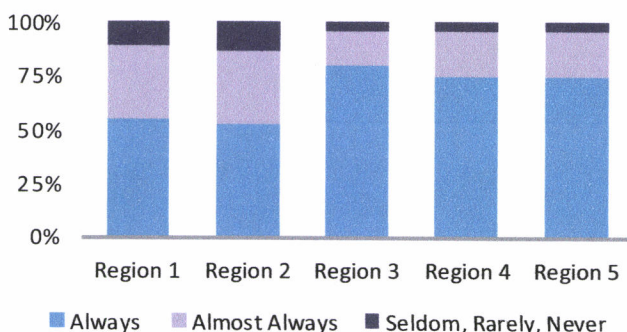
#### Frequency of seat belt use by age



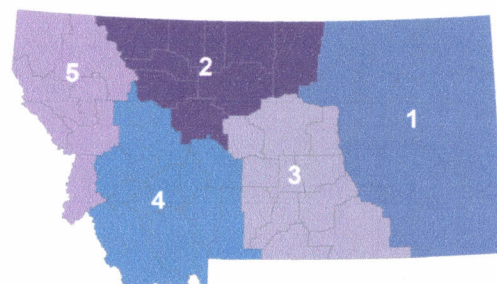
Respondents from Regions 3, 4 and 5 reported wearing a seat belt more frequently than Regions 1 and 2.

**Consider this: Crashes in rural areas may not be found right away, especially single vehicle crashes. Buckling up can decrease the risk for severe injury and increase the chance of surviving a crash.**

#### Seat belt use by region



#### Montana Healthcare Planning Regions

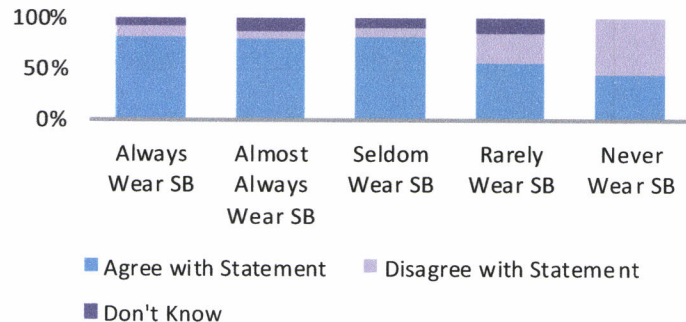




When asked whether buckling up is the law in Montana, those who don't regularly buckle were more likely to believe that seat belts are *not* required by law.

**Consider this:** Montana has a seat belt law; it has a secondary enforcement provision that may give the perception that wearing a seat belt is a choice. Unbuckled individuals are not only putting themselves and others at risk for an injury (or worse), they are also breaking the law by not buckling up every time, every ride.

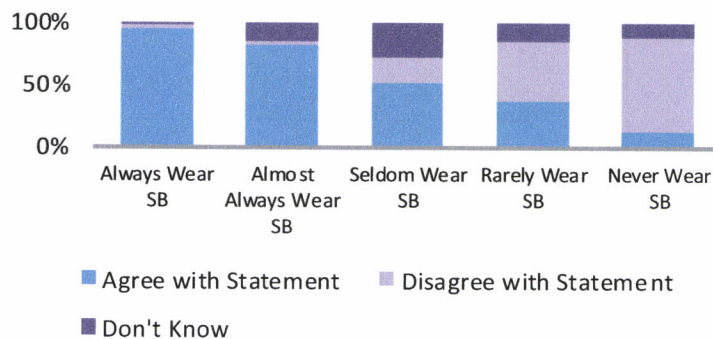
**Statement: Seat belts are required by law, by seat belt use**



Individuals who reported *always* or *almost always* wear a seat belt, more frequently agreed with the statement *Seat Belts Are Necessary for Short Distance Travels* than those who *rarely* or *never* wear a seat belt.

**Consider this:** Even at low speed, crash forces (your weight times the speed at which you're traveling) can cause significant damage to your body. At just 35 mph, you'll be thrown with the same force as you would hitting the ground after leaping from a four-story building.

**Statement: Seat belts are necessary for short distance travels, by seat belt use**



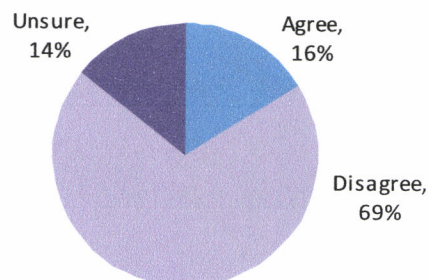
## 93% of Montanans Surveyed Regularly Wear A Seat Belt

Although Montana has a seat belt law, respondents were asked whether they agreed with the statement, *The Decision to Wear a Seat Belt Should Not Be Required by Law*.

The majority of survey respondents **disagreed** with the statement.

**Consider this:** The majority of Montanans surveyed support safety through seat belt laws and regular use of seat belts when traveling in and out of town.

**Statement: The decision to wear a seat belt should NOT be required by law**



### Seat Belt Use and Health Care Costs in Montana

- During the 2-year period including 2010 and 2011, 325 passenger vehicle occupants were killed on Montana roads. Two-thirds of these individuals (219) were not wearing a seat belt.<sup>15</sup>
- Drivers wearing seat belts sustained less severe injuries in crashes, compared to drivers not wearing seat belts (see Figure 6). Unbelted occupants were 7 times more likely to die from their injuries and over twice as likely to sustain an incapacitating injury than belted crash-involved occupants.<sup>15</sup> Hospital-assigned Injury Severity Scores (ISS)— an anatomical-based scoring system which correlates with expected mortality, the need for hospitalization and intensive care, length of hospital stay, cost and treatment complexity, disability, and quality of life—also showed that the use of seatbelts decreased injury severity, for injured motor vehicle occupants admitted to hospitals (see Figure 7)<sup>16</sup>.

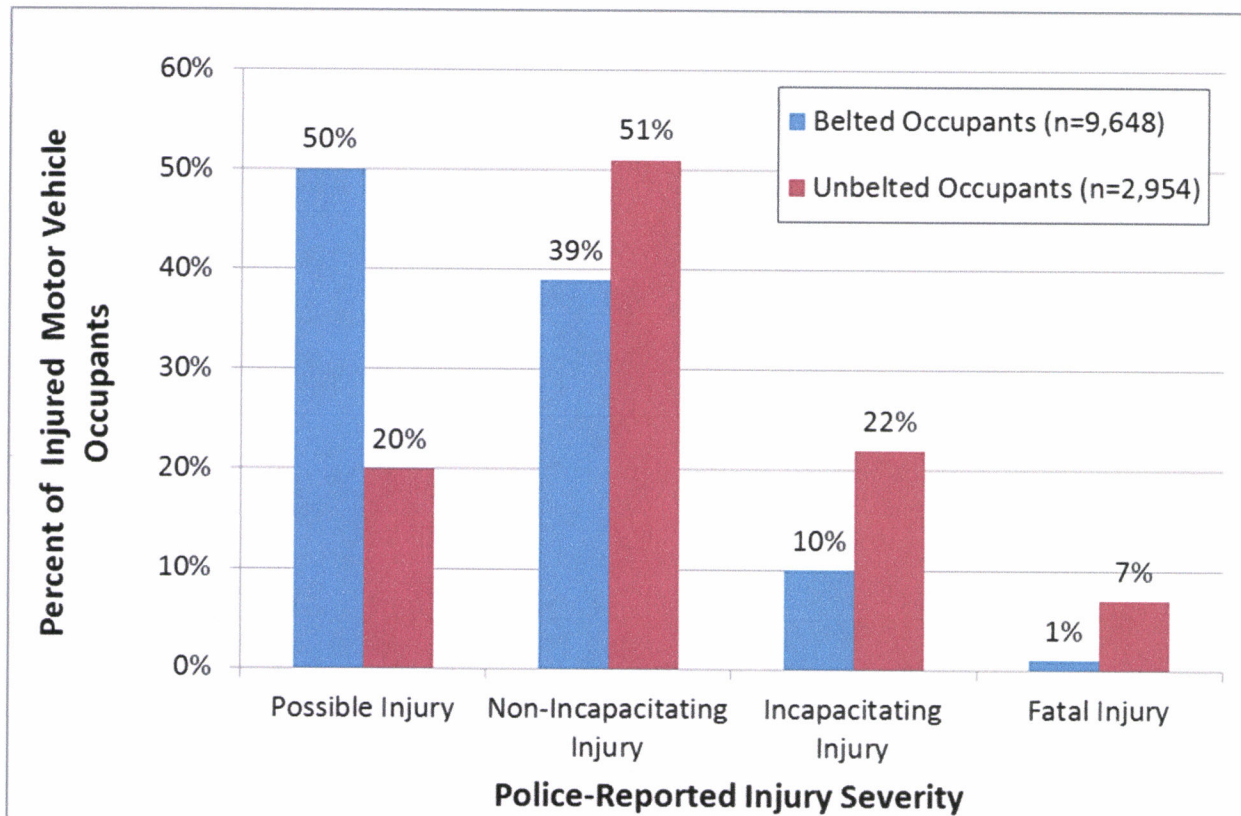


Figure 6. Police-Reported Injury Severity by Seat Belt Use for all Occupants



## Injured in Motor Vehicle Crashes in Montana in 2010 and 2011.

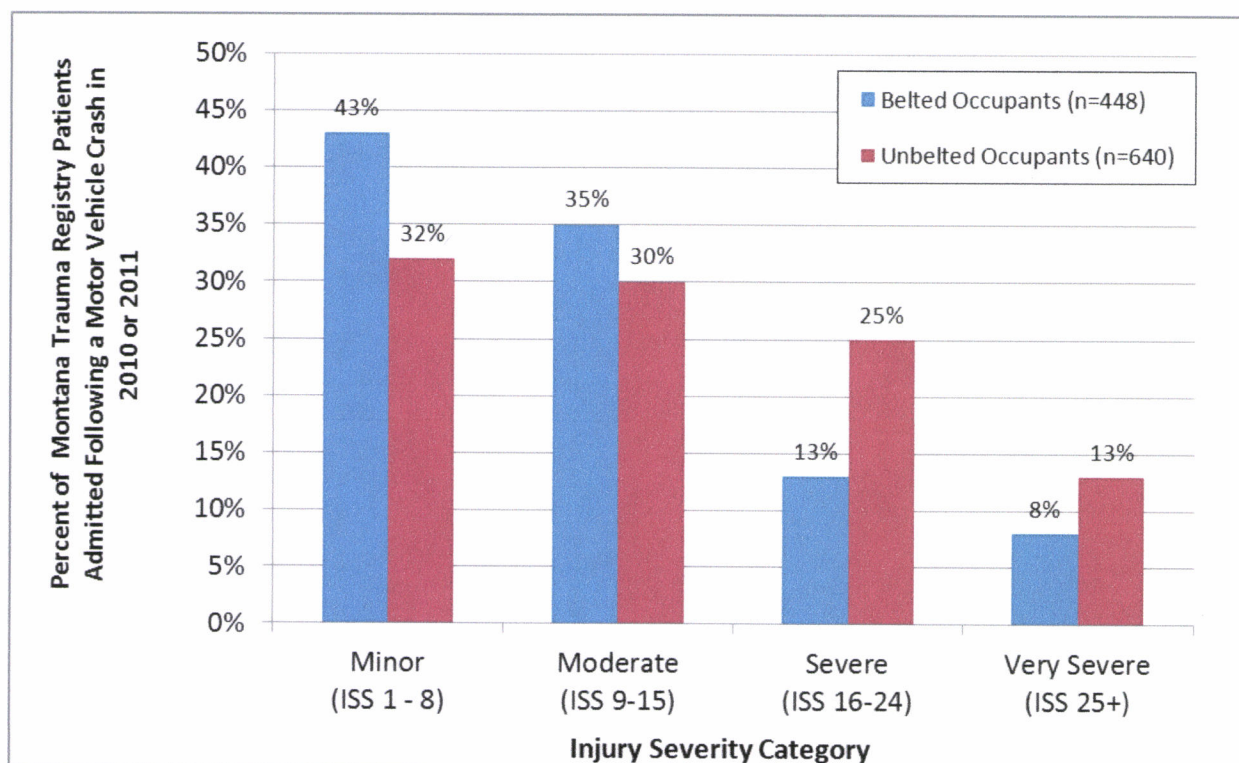


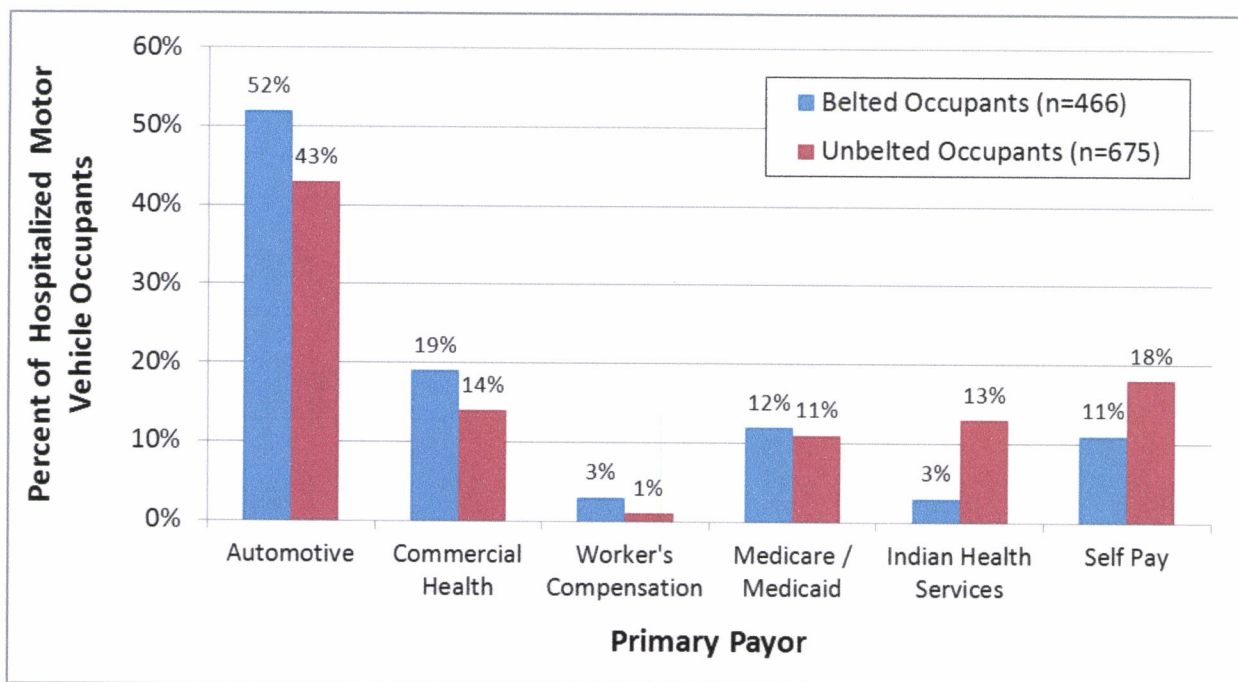
Figure 7. Hospital-Assigned Injury Severity Score by Restraint Use, for Patients

Included in the Montana Trauma Registry following a Motor Vehicle Crash in 2010 or 2011.

- Among Montana crash occupants who required admission to a hospital in 2010 and 2011 following a motor vehicle crash, 59% were not belted, and 41% were belted<sup>17</sup>.
- During this same time period (2010-2011), an estimated 784 **unbelted** injured vehicle occupants were hospitalized for care.<sup>18</sup> An estimated 368 of these hospitalizations could have been prevented if the occupants had worn a seat belt.<sup>19</sup>
- Unbelted occupants are less likely than belted occupants to have medical or automotive insurance that pays for their hospitalizations (58% vs. 74%), and are more likely to have their hospital costs paid from federal or state sources (Medicare, Medicaid, or Indian Health Services) than belted occupants (24% vs. 15%).<sup>20</sup> (See Figure 8).
- Nearly one-fifth of unbelted occupants (18%) have no insurance (self-pay patients); their

hospital costs are ultimately paid for by the state of Montana. Combining the payor categories of Self-Pay, Indian Health Services, and Medicare/Medicaid, 42% of unbelted occupants have their hospitalization costs paid for by state or federal sources. This compares to 26% of belted occupants.

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**Figure 8. Primary Payor of Hospital Bill by Patient's Seat Belt Use, for**

**Montanans Hospitalized following a Motor Vehicle Crash**

**(2010 and 2011 Trauma Registry Data).**

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- Unbelted occupants had higher average hospital charges than belted occupants (\$58,632 vs. \$49,803).<sup>2</sup>

- Caring for unbelted Montana patients during this period (2010-2011) costs over \$40,095,923 in direct hospital charges, which could have been prevented through seat belt use. These costs result from three sources:<sup>22</sup>

- o More hospital admissions: 368 individuals requiring hospital care for preventable injury (368 x \$58,632 average unbelted admission = \$21,576,576).

- o Higher costs per hospital stay: 416 hospitalized individuals requiring \$8,829 more for their care than belted occupants (\$3,672,864)

- o Costs for emergency care<sup>23</sup>: An estimated 10,192 unbelted occupants requiring emergency outpatient care, at an estimated average cost of \$1,456.68 each (\$14,846,483).

- On top of the hospital charges, doctor fees for unbelted occupants seen in the ER as well as those admitted to hospitals are estimated at \$8,019,185<sup>24</sup>, resulting in total hospital and physician charges for unbelted occupants at \$48,115,108 in 2010 and 2011 (an average of \$24,057,554 per year).

- The estimated costs paid by state and federal sources (Medicaid, Medicare, and Indian Health Services) for unbelted occupants needing medical care in 2010 and 2011 were \$10,104,124 (an average of \$5,052,062 per year).

- An 11% increase in seat belt use by the 6,170 occupants injured in motor vehicle crashes in 2011, would result in 48 fewer fatalities (a 28.6% decrease), 69 fewer incapacitating injuries (a 9.4% decrease), 75 fewer non-incapacitating injuries (a decrease of 2.9%), and 192 more possible injuries (an increase of 7.2%). The increase in possible injuries is the result of the more serious injuries and fatalities



shifting to less serious injury categories.

- The decrease in fatalities and serious injuries resulting from implementing a primary seat belt law (and the associated 11% increase in seat belt use) would result in fewer hospitalizations and emergency department visits for unbelted occupants. In 2011, the number of hospitalizations for injured unbelted occupants would decrease from 369 to 196 (a decrease of 46.9%). The number of emergency room visits for injured unbelted occupants would be reduced from 4,797 to 2,548 (a decrease of 46.9%).
- Estimated hospital and professional fees for unbelted occupants' hospitalizations and emergency room visits would be reduced from \$24,057,554 per year to \$11,849,486 per year (a reduction of \$12,208,068 in billed charges per year, or a decrease of 51%).
- Assuming that the same percentage of the unbelted injured occupants would have their medical bills paid for by state or federal sources (42%), and using the Medicare cost to charge ratio of 50%, the estimated annual cost of medical care (hospital costs, plus professional fees estimated at 20% of hospital costs) paid for by taxpayer dollars for unbelted occupants would be \$2,475,201 if a primary belt law were enacted. This compares to the estimate derived for the year 2011 under the present secondary belt law of \$5,052,062, and represents an annual savings to taxpayers of \$2,576,861 (a decrease of 51%).